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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,143	10/30/2000	Satoshi Shinada	Q60866	6582

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 11/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,143

Applicant(s)

SHINADA ET AL.

Examiner

Michael P Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,12-19,26-31,38 and 39 is/are rejected.
- 7) ☒ Claim(s) 2,11,20-25 and 32-37 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

"Comprising" (line 1) is improper.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 11, the ribs of said spacer is not described in the specification to be provided with a concave portion. Claim 28, the long side wall is not described to protrude to the ink chamber.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ribs (of said

spacer) provided with a concave portion (claim 11) and the long side wall protruding to the ink chamber (claim 28) must be shown or the feature(s) cancelled from the claim(s).

No new matter should be entered.

Claim Objections

4. Claims 4, 7, 9, 11, and 17 are objected to because of the following informalities:

- claim 4, said ink absorbing member is opposed to which element?
- claim 7, each adjacent rib is joined to which element?
- claim 9, said ink flow path is not opposed to which element?
- claim 11, said ink supply path is opposed to which element? After "concave" (line 5) should insert – portion --.
- claim 17, line 5, after "pressure" should insert – lower --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 3, 6, 8, 9, 12, and 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following claims lack antecedent basis:

- claim 3, "said through holes".
- claim 6, "said flat base".
- claims 8, 9, "said ribs".
- claim 12, "said base".
- claim 20, are the ink supply ports (lines 6, 8) different from each other?
- claim 23, how can the ink chambers be portioned by the side walls of the container body?

The remaining claims are also rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

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by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 3-10, 12-19, 38, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyazawa et al. (US 6,250,750).

Miyazawa et al. discloses all the claimed features of the invention including:

- an ink cartridge (Figs. 1, 6, 7) for use in an ink jet recording apparatus (column 1, lines 6-8) comprising:

- a container body (1) housing an ink absorbing member (18) for absorbing ink in an ink chamber (Fig. 1),

- an ink supply port (10) which communicates said ink chamber to a recording head (column 4, line 30);

- a lid member (20) sealing an opening portion of said container body (20 covers opening of 1, Fig. 1),

- a spacer (22) inserted between said lid member and said ink absorbing member for pressing said ink absorbing member toward said ink supply port (Fig. 1),

- a plurality of said through holes (bottom holes of 30, 31) is provided so as to oppose said injecting port independent of an extension direction of said spacer and so as to be symmetric with respect to each other (holes are about the same size, Fig. 1),

- said spacer presses toward said ink supply port at least an area where said ink absorbing member is opposed (Fig. 1),

- said spacer is provided with a flat base (flat surface of 22 contacting 20, Fig. 3b) at an opposite side to said lid member (Fig. 3b) and with a rib (21) extending to a longitudinal direction of said container body at an opposite side to said ink absorbing member (Fig. 3a),

- a projection (21) engaging with said lid member is formed in said flat base at an opposite side to said lid member (Figs. 3a, 3b),

- said spacer is provided with a flat base at an opposite side to said lid member and with plural ribs (21) extending to a longitudinal direction of said container body at an opposite side to said ink absorbing member (Fig. 3b), and said each adjacent rib is joined (21 joined to 22),

- said ribs (22) are positioned at both sides of said container body in width direction (Fig. 3a),

- a convex portion (Figs. 1, 14) is formed at said ink supply port, said convex portion protrudes from the bottom of said container body (Fig. 1, 14) and has an ink flow path communicating with said ink supply port (Figs. 1, 14), and said ribs contact with said ink absorbing member at an area where said ink flow path is not opposed (Fig. 1),

- projections (21) are formed at corners (21 formed at corners of 20) of said base in a longitudinal direction so as to contact with the inside of said ink container body (Figs. 1, 3a),

- a projection (projection of 10) is formed at said base for pressing said ink absorbing member toward said ink supply (10 pressing against 18),

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- said container body is divided into a plurality of ink chambers (Fig. 7) communicating with the ink supply port by walls (43), and said ink absorbing member is pressed by said spacer and inserted toward said ink supply port (Fig. 1),

- said container body is divided by walls (walls of ink chambers, Fig. 8) parallel to the ink supply needles arrangement direction (Fig. 8), and areas provided with said ink supply ports are divided so as to communicate with said ink supply ports (Fig. 8),

- the divided areas of said container body having no ink supply ports are open to outside of said container body (top portion of cartridge open to outside), and said container body is installed in an air tight and gas impermeable package (75) so as to maintain a pressure than atmospheric pressure (Fig. 10),

- a width of the ink chamber is narrower than widths of the short side walls of the ink chamber (Fig. 3a),

- a width measured in a direction parallel to the short side walls of the ink chamber is wide at an opening portion of the container body and narrow at an ink supply port side of the container body (ink supply port side is narrower than top side, Fig 7).

Claims 26-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyazawa et al..

Miyazawa et al. discloses all the claimed features of the invention including:

- an ink cartridge (Figs. 1, 6, 7) for use in an ink jet recording apparatus (column 1, lines 6-8) comprising:

- a container body (1) having an ink absorbing member (18) for absorbing ink in an ink chamber,

- an ink supply port (10) which communicates said ink chamber to a recording head (column 4, line 30),

- a lid member (20) sealing an opening portion of said container body, wherein a side wall (bottom wall of 1) of said container body protrudes to the ink chamber (bottom wall protrudes to the chamber at ink supply port 10, Fig. 1),

- the bottom portion of the side wall in said container body protrudes to the ink chamber (Fig. 1),

- said container body has a long (bottom wall) and a short side wall (vertical wall); and the long side wall of said container body protrude to the ink chamber (Fig. 1),

- the bottoms portion of said container body includes a sloping portion (sloping portion of 10) which protrudes to the ink chamber,

- said ink absorbing member is strongly compressed at a central area of a bottom portion of said ink chamber (Fig. 1),

- said ink supply port communicates with a concave portion (Fig. 14) formed at a projection (projection of 10) extending substantially to the central portion in the direction of the long side wall of said container body (Fig. 1).

Allowable Subject Matter

7. Claims 2, 11, and 32-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 20-25, 36, and 37 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Reasons For Allowance


9. The combination as claimed wherein through holes are formed in said spacer (claim 2) or ribs (of said spacer) are provided with a concave portion (claim 11) or a concave portion formed at the second side wall (claim 20) or a storage device storing information regarding ink stored amount (claims 32-35) is not disclosed, suggested, or made obvious by the prior arts of record.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Childers et al. (US 6,130,695) discloses a storage device (26) for storing ink information (Fig. 8).

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. An inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Michael Nghiem', with a stylized flourish at the end.

Michael Nghiem

November 8, 2001